

CLAIMS

1. A digital watermarking system using an encrypted algorithm, the digital watermarking system comprising:

an operator server for storing and providing contents, for creating and assigning a user key for authentication to an accessing person, for watermarking information in the contents requested for by the accessing person using the authentication user key, in realtime and for extracting watermarked information from the watermarked contents;

a user client having accessed the operator server, for requesting for and receiving necessary contents from the operator server; and

a computer network connecting the operator server and the user client.

2. The digital watermarking system of claim 1, wherein said operator server watermarks a content in connection with a duplication process (history) of the contents, said watermark a function of the contents have been requested and duplicated, by whom (user ID), when (contents request time) and from which computer (user client IP address).

3. The digital watermarking system of claim 1, wherein said operator server comprises:

a web server providing a web document to the user client when the user client accesses the operator server;

a database for storing data necessary for operating the whole system, which includes contents-related information and

user information such as an identification (ID), an e-mail address and a user key;

an authentication unit for detecting whether the user accesses the web server, creating a user key for user authentication if a user access has been detected, and then storing the user key in the database, and

a watermarking unit for watermarking information indicating a contents duplication process (history) including at least one of the user ID, the user key, a request time and a user computer Internet Protocol (IP) address in the contents to be transferred, when the user accessed the web server requests for transferring contents based on execution of a realtime watermarking program, and extracting said watermarking information.

4. An operating method for running a realtime digital watermarking system, the operating method comprising the acts of:

(a) creating a user key for user authentication and issuing the user key to a log-in person having accessed an operator server, using a previously registered user's identification (ID);

(b) the user requesting for contents;

(c) watermarking a contents duplication process (history) on the requested contents in realtime, based on execution of a realtime watermarking program; and

(d) transferring the watermarked contents to the user.

5. The operating method of claim 4, further comprising the step of extracting all the watermarked information from the watermarked contents based on the execution of the realtime watermarking program.

6. The operating method of claim 4, wherein watermarking is encrypted in order to prevent alteration and damage of the watermarked information.